

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. 00-008

WASTE DISCHARGE REQUIREMENTS
FOR
COACHELLA VALLEY WATER DISTRICT, OWNER/OPERATOR
PALM DESERT WASTEWATER RECLAMATION FACILITY
WATER RECLAMATION PLANT NO. 10
Palm Desert - Riverside County

The California Regional Water Quality Control Board, Colorado River Basin Region finds that:

1. Coachella Valley Water District (hereinafter referred to as the discharger), P.O. Box 1058, Coachella, California 92236, submitted an application to update its Waste Discharge Requirements (WDRs) for the Palm Desert Wastewater Reclamation Facility located at 43-000 Cook Street, Palm Desert, California.
2. The discharger currently operates a sewage treatment facility that consists of an activated sludge treatment plant (providing a secondary level of treatment of the wastewater), a tertiary wastewater treatment plant, a lined holding basin, six (6) storage basins, and twenty-one (21) infiltration basins. The discharger is in the process of expanding the tertiary treatment and recycled water pumping capacity in order to maximize the use of recycled water.
3. The combined secondary wastewater treatment design capacity of both plants is 18 million gallons-per-day (MGD). The secondary treatment plant consists of three mechanical bar screens, one aerated grit chamber, one vortex type grit chamber, 16 aeration basins, and 14 secondary clarifiers. Secondary sludge is pumped to the solids handling facility for thickening and dewatering. The solids handling facility is being modified, and by January 1, 2001, will consist of the following major process units: two dissolved air flotation thickeners, and two belt presses (for dewatering). Centrifuges may be used in the future for dewatering. The capacity of the solids handling is designed to process solids from a flow of 18.0 MGD.
4. The discharger is treating an annual average daily flow of 11 MGD from the activated sludge plant. Approximately fifty percent of this plant's effluent is treated further in the tertiary treatment plant for use through the existing recycled water distribution system. The remaining secondary effluent is piped to the holding basin and/or the six storage basins, and then to the 21 infiltration basins for final disposal. The facility is located within the S 1/2 of the NW 1/4 and the N 1/2 of the SW 1/4 of Section 15, T5S, R6E, SBB&M, as indicated on the attached site map, incorporated herein and made a part of this Board Order. The discharger reports that part of the secondary treatment plant effluent is used for on-site landscape irrigation.
5. The solids removed from the grit chamber are being disposed at a Regional Board approved landfill. The discharger has contracted the service of a private contractor to haul away the treated secondary sludge. The secondary sludge is then further processed to remove pathogens and sold as a soil amendment. In the event that the discharger's private contractor is unable to provide service for secondary sludge removal and disposal, the discharger plans to transport secondary sludge to the discharger's Water Reclamation Plant No. 4 as a contingency plan for temporary storage.

6. The purpose of the tertiary treatment process is to provide recycled water for the irrigation of off-site properties, as allowed by the California Code of Regulations, Title 22, Division 4, Chapter 3, or specifically approved by the State Department of Health Services. The tertiary treatment system is being expanded and by completion in January of the year 2001, will consist of two tertiary treatment plants. The existing plant has a 10 MGD tertiary capacity and consists of coagulation, flocculation and dual media filtration (sand and anthracite). The proposed second tertiary treatment plant will consist of coagulation and continuous deep-bed, upflow sand filtration. For both of these processes, the effluent is chlorinated for disinfection, and it is pumped directly to irrigation facilities located on the user's premises. The proposal will increase the tertiary treatment design capacity to 15 MGD. Tertiary treated water not necessary for immediate demand is stored in a five-million-gallon lined and covered holding basin.
7. Data submitted by the discharger indicates that depth-to-ground water in the vicinity of the plant is between 141 to 165 feet below ground surface. The soil texture below the plant ranges from fine sand to gravel.
8. The facility has a ground water monitoring system surrounding the operation. The system is monitored to evaluate the impact of this facility on ground water.
9. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan) was adopted on November 17, 1993, and designates the beneficial uses of ground and surface waters in this Region.
10. The beneficial uses of ground waters in the Coachella Hydrologic Subunit are:
 - a. Municipal supply (MUN)
 - b. Industrial supply (IND)
 - c. Agricultural supply (AGR)
11. There are no domestic wells within 500 feet of the on-site infiltration basins described in Finding No. 4, above.
12. This discharge has been subject to waste discharge requirements adopted in Board Order No. 97-005.
13. The discharger reports that there is currently no significant industrial wastewater being discharged to the wastewater treatment facility.
14. The State Department of Health Services has established statewide reclamation criteria in Title 22, California Code of Regulations, Section 60301, et. seq. (hereinafter Title 22) for the use of recycled water and has developed guidelines for specific uses.
15. Federal regulations for storm water discharges were promulgated by the U. S. Environmental Protection Agency on 16 November 1990 (40 CFR Parts 122, 123, and 124). The regulations require specific categories of facilities which discharge storm water associated with industrial activity to obtain NPDES permits and to implement Best Conventional Pollutant Technology (BCT) to reduce or eliminate industrial storm water pollution.

16. The State Water Resources Control Board adopted Order No. 91-13-DWQ (General Permit No. CAS000001), as amended by Water Quality Order No. 92-12-DWQ, specifying waste discharge requirements for discharges of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent by industries to be covered under the Permit.
17. The Board has notified the discharger and all known interested agencies and persons of its intent to update waste discharge requirements for this discharge and has provided them with an opportunity for a public meeting and an opportunity to submit comments.
18. The Board, in a public meeting, heard and considered all comments pertaining to this discharge.
19. The Board of Directors of the Coachella Valley Water District approved a Negative Declaration on June 9, 1998 for the expansion of tertiary treatment capability from 10 MGD to 15 MGD.

IT IS HEREBY ORDERED, that Board Order No. 97-005 is rescinded, and in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the discharger shall comply with the following:

A. Effluent Limitations

1. Wastewater effluent discharged to infiltration basins from treatment facilities shall not contain constituents in excess of the following limits:

<u>Constituent</u>	<u>Unit</u>	<u>30-Day Arithmetic Mean Discharge Rate¹</u>	<u>7-Day Arithmetic Mean Discharge Rate²</u>
20° CBOD ³	mg/L ⁴	20	30
Total Suspended Solids	mg/L	20	30
Settleable Matter	ml/L ⁵	0.3	0.5

2. Both treated and untreated wastewater shall be prevented from entering surface water bodies.
3. Wastewater discharged to the infiltration basins shall not contain constituents in excess of the following annual mean limits:

¹ 30 Day Mean-The arithmetic mean of pollutant parameter values of samples collected in a period of 30 consecutive days as specified in the Monitoring and Reporting Program.

² 7 Day Mean-The arithmetic mean of pollutant parameter values of samples collected in a period of 7 consecutive days as specified in the Monitoring and Reporting Program.

³ CBOD₅ - Carbonaceous Biochemical Oxygen Demand

⁴ mg/L - milligrams per Liter

⁵ ml/L - milliliters per Liter

<u>Constituent</u>	<u>Unit</u>	<u>Annual Mean Limits</u>
Total Dissolved Solids	mg/L	500
Sulfate (SO ₄)	mg/L	70
Chloride (Cl)	mg/L	70
Fluoride	mg/L	1.2

B. Discharge Specifications

1. The treatment or disposal of wastes at this facility shall not cause pollution or nuisance as defined in Section 13050 of Division 7 of the California Water Code.
2. A minimum depth of freeboard of two (2) feet shall be maintained at all times in holding/infiltration basins.
3. Public contact with non-disinfected wastewater shall be precluded through such means as fences, signs, and other acceptable alternatives. The non-disinfected wastewater is not approved for off-site distribution. Conspicuous signs shall be posted in a prominent location in each area where non-disinfected wastewater is stored on-site. Each sign or label with "Non-disinfected wastewater - No body contact or drinking" wording shall be displayed as well as the international warning symbol.
4. The discharge shall not cause degradation of any water supply.
5. The dissolved oxygen content in the upper zone (one foot) of infiltration/storage basins shall not be less than 1.0 mg/L.
6. On-site wastes, including windblown spray from recycled water application, shall be strictly confined to the lands specifically designated for the disposal operation, and on-site irrigation practices shall be managed so there is no runoff of effluent from irrigated areas.
7. Tertiary treated effluent directly reused shall conform to the following:
 - a. Recycled water used for the irrigation of golf courses, landscaping, non-restricted recreational impoundments and decorative fountains where the public has access or exposure, shall be at all times adequately disinfected, oxidized, coagulated, filtered wastewater or a wastewater treated by a sequence of unit processes that assure an equivalent degree of treatment and reliability.
 1. The wastewater shall be considered adequately disinfected if the median number of total coliform bacteria in the effluent does not exceed 2.2 per 100 milliliters, as determined from the bacteriological results of the preceding seven days for which analyses have been completed, and the number of total coliform bacteria does not exceed 23 per 100 milliliters in any sample.

2. Filtered wastewater means an oxidized, coagulated, clarified wastewater which has been passed through natural undisturbed soils or filter media, such as sand or diatomaceous earth, so that the turbidity, as determined by an approved laboratory method, does not exceed an average operating turbidity of two turbidity units and does not exceed five turbidity units more than five percent of the time during a 24 hour period.
 3. Disinfected wastewater means a filtered wastewater which has been disinfected and has a minimum effluent total chlorine residual times the modal contact time (ct) of 450 milligrams-minute per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow.
- b. The discharger shall not deliver recycled water for reuse to those users whom, by reason of their operational practices, cause nuisances associated with wastewater or otherwise contribute to the violation of the requirements of this Board Order.
8. The storage, delivery, or use of recycled water shall not individually or collectively, directly or indirectly, result in pollution, or adversely affect water quality, as defined in the California Water Code.
 9. The delivery or use of recycled water shall be in conformance with the reclamation criteria contained Title 22, or amendments thereto, for the irrigation of food crops, irrigation of fodder, fiber, and seed crops, landscape irrigation, supply of recreational impoundments and ground water recharge.
 10. Prior to delivering recycled water to any new user, the discharger shall submit to the Regional Board a report discussing any new distribution system being constructed by the discharger to provide service to the new user.
 11. Recycled water shall not be delivered to any new user who has not first received a discharge permit from the Regional Board and approval from the State Department of Health Services.
 12. Objectionable odors originating at this facility shall not be perceivable beyond the limits of the wastewater treatment and disposal area.
 13. Treated or untreated sludge or similar solid waste materials shall be disposed at locations approved by the Regional Board's Executive Officer.

C. Prohibitions

1. The direct discharge of any wastewater from the facility to any surface waters or surface drainage courses is prohibited.
2. Bypass or overflow of untreated or partially treated waste is prohibited.
3. Discharge of treated wastewater at a location or in a manner different from that described in Finding Nos. 4 and 6, above, is prohibited. This prohibition does not limit the flexibility in discharging different percentages of treated wastewater.
4. The discharger shall not accept waste in excess of the design treatment capacity of the disposal system.

D. Provisions

1. The discharger shall comply with "Monitoring and Reporting Program No. 00-008", and future revisions thereto, as specified by the Regional Board's Executive Officer.
2. Prior to any modifications of this facility which would result in material change in the quality or quantity of wastewater treated or discharged, or any material change in the location of discharge, the discharger shall report all pertinent information in writing to the Regional Board and obtain revised requirements before any modifications are implemented.
3. Prior to any change in ownership or management of this operation, the discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Board.
4. The discharger shall ensure that all site-operating personnel are familiar with the content of this Board Order, and shall maintain a copy of this Board Order at the site.
5. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
6. Facilities shall be available to keep the plant in operation in the event of commercial power failure.
7. The discharger shall allow the Regional Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the premises regulated by this Board Order, or the place where records must be kept under the conditions of this Board Order;
 - b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this Board Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Board Order; and
 - d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Board Order or as otherwise authorized by the California Water Code, any substances or parameters at this location.
8. The discharger shall comply with all of the conditions of this Board Order. Any noncompliance with this Board Order constitutes a violation of the Porter-Cologne Water Quality Control Act and is grounds for enforcement action.
9. The discharger shall, at all times, properly operate and maintain all systems and components of treatment and control which are installed or used by the discharger to achieve compliance with the conditions of this Board Order. Proper operation and maintenance includes effective performance, adequate process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of this Board Order. All systems both in service and reserved, shall be inspected and maintained on a regular basis. Records shall be kept of the inspection results and maintenance performed and made available to the Regional Board upon demand.

10. The discharger shall report any noncompliance that may endanger human health or the environment. Information shall be provided orally within 24 hours of when the discharger becomes aware of the incident to the Regional Board office and the Office of Emergency Services. The discharger shall also leave a message on the Regional Board office voice recorder at the above listed number during non-business hours. A written report shall also be provided within five business days of the time the discharger becomes aware of the incident. The written report shall contain a description of the noncompliance and its cause, the period of noncompliance, the anticipated time to achieve full compliance, and the steps taken or planned, to reduce, eliminate, and prevent recurrence of the noncompliance. The discharger shall report all intentional or unintentional sewage spills in excess of 1,000 gallons occurring within the facility or collection system to the Regional Board office in accordance with the above time limits.
11. The discharger shall comply with the following:
 - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - b. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Board Order, and records of all data used to complete the application for this Board Order, for a period of at least 5 years from the date of the sample, measurement, report or application.
 - c. Records of monitoring information shall include:
 1. The date, exact place, and time of sampling or measurements.
 2. The individual(s) who performed the sampling or measurements.
 3. The date(s) analyses were performed.
 4. The individual(s) who performed the analyses.
 5. The results of such analyses.
12. Unless otherwise approved by the Regional Board's Executive Officer, all analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. All analyses shall be conducted in accordance with the latest edition of "Guidelines Establishing Test Procedures for Analysis of Pollutants", promulgated by the United States Environmental Protection Agency.
13. The discharger shall provide the following information regarding off-site use of tertiary effluent:
 - a. Name and location of the golf courses/landscape areas being irrigated.
 - b. Quantity and quality of the tertiary effluent provided to individual customers.
 - c. The discharger shall immediately notify the Regional Board's Executive Officer of any changes regarding Items a, and b, above.
14. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.

15. The discharger's wastewater treatment plant shall be supervised and operated by persons possessing certification of appropriate grade pursuant to Section 3680, Chapter 4, Division 4, Title 23 of the California Code of Regulations. The discharger shall ensure that all operating personnel are familiar with the contents of this Board Order.
16. The discharger shall provide a report to the Regional Board when it determines that the plant is operating at 80 percent of the design capacity specified in Findings No. 3 and 6 above. The report should indicate what steps, if any, the discharger intends to take to provide for the expected wastewater treatment capacity necessary when the plant reaches design capacity.
17. The discharger is the responsible party for the waste discharge requirements and the monitoring and reporting program for the facility. The discharger shall comply with all conditions of these waste discharge requirements. Violations may result in enforcement actions, including Regional Board Orders or court orders, requiring corrective action or imposing civil monetary liability, or in modification or revocation of these waste discharge requirements by the Regional Board.
18. The discharger shall at all times properly operate and maintain all facilities and systems of treatment and control including, but not limited to, sludge use and disposal facilities which are installed or used by the discharger to achieve compliance with the conditions of this Board Order. Proper operation and maintenance includes, but is not limited to, adequate laboratory controls and appropriate quality assurance procedures. This specification allows for the operation of backup or auxiliary facilities, or similar systems that are installed by the discharger, when the operation is necessary to achieve compliance with the conditions of the Board Order.
19. The discharger shall furnish, under penalty of perjury, technical monitoring program reports, and such reports shall be submitted in accordance with the specifications prepared by the Regional Board's Executive Officer. Such specifications are subject to periodic revisions as may be warranted.
20. The discharger shall obtain prior written approval from the Regional Board specifying location and method of disposal, before disposing of treated or untreated sludge, or similar solid waste materials using a method not described in Finding No. 5. In addition, the discharger shall provide the results of any sludge analyses as specified by the Regional Board's Executive Officer.
21. The discharger shall allow the Regional Board's Executive Officer, or his/her authorized representative, to sample or monitor influent, effluent, and sludge for the purposes of determining compliance with this Board Order and other applicable requirements regarding sludge use and disposal.
22. All storm water discharges from this facility must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies, regarding discharges of storm water to storm water drain systems or other courses under their jurisdiction.
23. Ponds shall have sufficient capacity to accommodate allowable wastewater flow, design seasonal precipitation, ancillary inflow, and infiltration during the non-irrigation season. Design seasonal precipitation shall be based on total annual precipitation using a return period of 100 years, distributed monthly in accordance with historical rainfall patterns.
24. Storm water discharges from the facility shall not cause or threaten to cause pollution or

contamination.

25. Storm water discharges from the facility shall not contain hazardous substances equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302.
26. The following information shall be submitted to the Regional Board's Executive Officer within 90 days after changes occur to the sludge processing systems outlined in Finding No. 3.
 - a. A schematic diagram showing sludge handling facilities (e.g., digesters, lagoons, drying beds, incinerators) and a solids flow diagram.
 - b. A narrative description of sludge dewatering and other treatment processes, including process parameters. For example, if sludge is digested, report average temperature and retention of the digesters. If drying beds are used, report depth of application and drying time. If composting is used, report the depth of application and drying time and the temperature achieved and duration.
27. The discharger shall submit an annual report that gives the amount (in tons) and the method of all sludge disposal for the previous year. In addition, if the discharger intends to dispose of secondary sludge using a method not described in Finding No. 5, then the discharger shall provide a plan as to the method, treatment, handling and disposal of sludge that is consistent with all State and Federal laws and regulations.
28. The discharger shall provide adequate notice to the Regional Board's Executive Officer of the following:
 - a. Any new introduction of pollutants into any of the treatment facilities described in the Findings of this Board Order from an indirect discharger which would be subject to Section 301 or 306 of the Clean Water Act, if it were directly discharging the pollutants.
 - b. Any substantial change in the volume or character of pollutants being introduced into any of the treatment facilities described in the Findings of this Board Order by an existing or new source.
 - c. Any planned physical alterations or additions to the facilities described in this Board Order, or changes planned in the discharger's sludge use or disposal practice, where such alterations, additions, or changes may justify the application of Board Order conditions that are different from or absent in the existing Board Order, including notification of additional disposal sites not reported during the Board Order application process, or not reported pursuant to an approved land application plan.
 - d. The discharger shall report all instances of noncompliance. Reports of noncompliance shall be submitted with the discharger's next scheduled self-monitoring report or earlier if requested by the Regional Board's Executive Officer, or if required by an applicable standard for sludge use and disposal.

29. The discharger shall maintain a permanent log of all solids hauled away from the treatment facility for use/disposal elsewhere and shall provide a summary of the volume, type (screenings, grit, raw sludge, digested sludge), use (agricultural, composting, etc.), and the destination in accordance with the Monitoring and Reporting Program of this Board Order. The sludge that is stockpiled at the treatment facility shall be sampled and analyzed for those constituents listed in the sludge monitoring section of the Monitoring and Reporting Program of this Board Order and as required by Title 40, Code of Federal Regulations, Part 503. The results of the analyses should be submitted to the Regional Board as part of the Monitoring and Reporting Program.
30. This Board Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the discharger for a Board Order modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Board Order condition. Causes for modification include the promulgation of new regulations, modification of land application plans, or modification in sludge use or disposal practices, or adoption of new regulations by the State Board or the Regional Board, including revisions to the Basin Plan.

E. Pretreatment

1. In the event that significant industrial wastewaters are being discharged to the wastewater treatment facility, then:
 - a. The discharger shall develop, implement, and maintain an industrial pretreatment program approved by the Regional Board's Executive Officer.
 - b. The discharger shall maintain an adequate revenue program and enforce prohibitions against any violation of the applicable pretreatment standards approved by the Regional Board's Executive Officer.
2. The discharger shall provide the Regional Board with an annual report describing the pretreatment program activities over the previous 12 month period. The report shall be transmitted to the Regional Board office no later than January 31 of each year and include:
 - a. A summary of actions taken by the discharger which ensures industrial-user compliance;
 - b. An updated list of industrial users (by SIC categories) which were issued permits, and/or enforcement orders, and a status of compliance for each user; and
 - c. The name and address of each user that received a revised discharge limit.
3. The Regional Board retains the right to take legal action against an industrial user and/or the discharger where a user fails to meet the approved applicable pretreatment standards.

I, Philip A. Gruenberg, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on June 28, 2000.

Executive Officer